

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0117951

Owner: City of Bunker
Address: PO Box 102, Bunker, MO 63629

Continuing Authority: Same as above
Address: Same as above

Facility Name: Bunker Wastewater Treatment Facility
Facility Address: County Road 900, Bunker, MO

Legal Description: NE¼, NE¼, Sec. 10, T32N, R2W Reynolds County
Receiving Stream: Unnamed Tributary to Tom's Creek (U)
First Classified Stream and ID: Tom's Creek (C) (2759)
USGS Basin & Sub-watershed No.: 11010007-020003

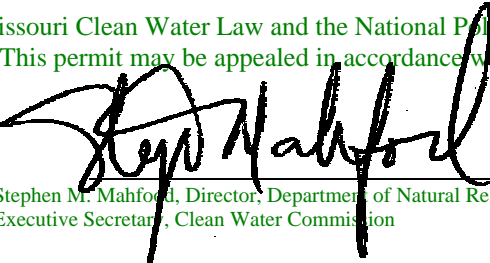
is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 - No Discharge System - SIC #4952
Four lagoons/irrigation system/sludge retained lagoon.
Design population equivalent is 500.
Design flow is 45,000 gallons per day.
Design sludge production is 10.5 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

May 30, 2003
Effective Date


Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

May 29, 2008
Expiration Date

Gary L. Gaines, P.E., Director, Southeast Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 2 of 5	
					PERMIT NUMBER MO-0117951	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 (Note 1) Emergency Outfall Flow	MGD	*		*	once/day**	24 hr. estimate
Biochemical Oxygen Demand ₅ ***	mg/L	65		45	once/month	grab
Total Suspended Solids***	mg/L	110		70	once/month	grab
PH - Units	SU	****		****	once/month	grab
Ammonia as N	mg/L	*		*	once/month	grab
Nitrate as N	mg/L	*		*	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> THE FIRST REPORT IS DUE <u>July 28, 2003</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<u>Land Application System</u> (Notes 2 & 3)						
Lagoon Freeboard	Feet	*			once/month	measured
Irrigation Period	hours	*			daily	total
Volume Irrigated	gallon s	*			daily	total
Application Area	acres	*			daily	total
Application Rate	inches /	*			daily	total
Rainfall	acre	*			daily	total
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2004</u> THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

** Monitor only when discharge occurs. Report as no-discharge when a discharge does not occur during the report period.

*** This facility is required to meet a removal efficiency of 65% or more.

**** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 1 - There shall be no discharge during normal operation. An emergency discharge may occur from the Tom's Creek lagoon or the irrigation site when excess wastewater has accumulated above feasible irrigation rates due to precipitation exceeding the 10-year 365 day rainfall or the 25 year 24-hour storm event. If a discharge occurs, monitor below the Tom's Creek lagoon and below irrigation site.

Note 2 - Monitoring during the first hour after a discharge from a rainfall event greater than 0.1 inch in a 24 hour period. Storm water runoff samples shall be collected for each storm water discharge point and the sample from each outfall shall be tested separately.

Note 3 - Records shall be maintained and summarized into an annual operating report which shall be submitted by January 28th of each year for the previous calendar year period. The report shall include the following:

- (a) record of maintenance and repairs performed during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
- (b) the number of days the lagoon has discharged during the year, the discharge flow, the reasons discharge occurred and effluent analysis performed; and
- (c) a summary of the irrigation operations including freeboard at the start and end of the irrigation season, the number of days of irrigation for each month, the total gallons irrigated, the total acres used, the application rate in inches/acre per day and for the year and the total precipitation received at the facility.

Note 4 - See Special Conditions for wastewater irrigation system.

C. SPECIAL CONDITIONS

1. Wastewater Irrigation System.

- (a) System Design and Application Rates.
 - (1) There shall be design capacity for at least 90 days storage for wastewater flows, plus the one in ten year rainfall minus evaporation and the 25 year 24-hour rainfall.
 - (2) Irrigation rates per acre shall not exceed 0.5 inch/hour, 1.0 inch/day, 3.5 inch/week and 120 inches/year on the irrigation sites.
 - (3) The wastewater irrigation site(s) shall be at least 5.0 acres.
 - (4) The vegetation grown on the irrigation site shall be grass.
 - (5) The wastewater is applied through surface distribution system consisting of 700 feet of perforated pipe overlain with gravel. Field slopes range from less than 6% to 16%.
 - (6) There shall be no public access to the land application site.
- (b) Buffer Zones. There shall be no irrigation within 300 feet of any downgradient pond, lake, sinkhole, or losing stream; 100 feet of gaining streams or tributaries including wet weather tributaries; 150 feet of dwelling; or 50 feet of the property line.
- (c) General Operating Requirements.
 - (1) There shall be no irrigation during frozen, snow covered, or saturated soil conditions.
 - (2) There shall be no irrigation on days when more than 0.2 inch of precipitation is received.
 - (3) The wastewater irrigation system shall be operated so as to provide uniform distribution of irrigated wastewater over the entire irrigation site.
 - (4) A complete ground cover of vegetation shall be maintained on the irrigation site.
 - (5) Wastewater shall be land applied only during daylight hours.

C. SPECIAL CONDITIONS (continued)

- (6) The irrigation system and application site shall be visually inspected at least once per day during wastewater irrigation.
 - (7) The irrigation system shall have automatic shut off device to shut down the system due to malfunction.
 - (d) Any discharge from the lagoon or irrigation system shall be reported to the department within 24 hours.
2. This permit may be reopened and modified, or alternatively revoked and reissued, to:
- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.
- The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

3. All outfalls must be clearly marked in the field.

4. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

5. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
6. Report as no-discharge when a discharge does not occur during the report period.
7. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;

C. SPECIAL CONDITIONS (continued)

- (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (e) There shall be no significant human health hazard from incidental contact with the water;
 - (f) There shall be no acute toxicity to livestock or wildlife watering;
 - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
8. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.